

We contacted Willem Levelt, Chair of the Levelt Committee, for his comment on a news piece (see pp.88-9). He offered us a sole and final rejoinder, published here in full

Since its appearance on 28 November, *Flawed Science*, the final report of our investigation committees on the scientific fraud of the social psychologist Diederik Stapel, has triggered a flood of reactions in both the public and private domain.

The report has been praised for its thorough analysis of the complete oeuvre, 137 publications, of Stapel. The scientific record in social psychology can now be cleansed of all 55 fraudulent papers (co-) authored by Stapel, of another 10 papers with serious evidence of fraud and of 10 (at least partly) fraudulent dissertations completed under Stapel's supervision. This sets a new standard for the investigation of other cases of scientific misconduct.

The report has been also praised for its revelation and detailed analyses of scientific malpractice, aside from

straightforward fraud,

which appeared in a majority of publications co-authored by Stapel.

There was, in particular, repeated evidence of selective data manipulation: verification bias in the design, the

statistical analysis and the reporting of the research conducted. The report noted, in addition, a general carelessness in applying basic standards of sound scientific procedure. In many cases, this negligence of scientific standards was quite manifest in the publications. Scientific colleagues let us know that they would make this analysis obligatory reading for their students or that they would use these examples in their courses on methodology and research design.

The report has also been criticised, in particular by the European Association of Social Psychologists (EASP) and by the BPS Social Psychology Section. These critical comments did not concern the facts reported, but their interpretation and inferred implications for the whole field of social psychology. The relevant facts for the interpretation were, in summary, these: The 137 publications co-authored by Stapel had gone through the hands of 70 different co-authors, some Dutch, many international. They had also been screened by a substantial number of reviewers of international, mostly leading,

journals in the field. Many of the papers, finally, had been examined by the 18 promotion committees of Stapel's PhD students. But, as the report says, 'virtually nothing of all the impossibilities, peculiarities and sloppiness mentioned in this report was observed by all these local, national and international members of the field, and no suspicion of fraud whatsoever arose'. This is remarkable at least for the many cases of manifest, often tendentious sloppiness. It is the more remarkable because increasingly Stapel's fraud became detectable, as the young whistleblowers eventually demonstrated.

The report's interpretation of these facts is two-pronged. Firstly, it states the obvious: the publications of Stapel and co-authors cannot and should not be considered as representative for the field of social psychology. The report states explicitly: 'The Committees are unable to make any statement on these grounds about social psychology as a whole', and 'the Committees are not suggesting that unsound research practices are commonplace in social psychology'. These statements have been fairly cited in public reactions to the report.

Secondly, the remarkable failure of the relevant national and international peer community to discern, over such a long period, the manifest negligence of scientific standards in the journal publications co-authored by Stapel impelled the Committees to address a more general issue. Could it be that customary procedures of enforcing and monitoring sound scientific practice in social psychology are in need of improvement? The report provides a range of concrete examples of the apparent failure of this critical function, at different levels of the scientific hierarchy far beyond Stapel's local research environment. This state of affairs was judged sufficiently serious to prompt the Committees to recommend a thorough investigation, both nationally and internationally, of these practices and review procedures.

Here, the Committees were in the good company of leading social psychologists. The report approvingly mentions various initiatives already taken since the Stapel fraud came to light in September 2011. It refers in particular to the excellent November 2012 issue of *Perspectives in Psychological Science*. The preface to that issue raises practically the same issue: 'Is there currently a crisis of confidence in psychological science reflecting an unprecedented level of doubt among practitioners about the reliability of research findings in the field? It would certainly appear that there is.' The special

issue then provides 23 papers, by leading authors, analysing these issues in social psychology and proposing various ways of improving customary practices, in particular by focusing on replication studies at all levels. This is exactly in line with the report's recommendation: 'Far more than is customary in psychology research practice, replication must be made part of the basic instruments of the discipline and at least a few journals must provide space for the publication of replicated research.'

The criticism the report received largely concerns the fact that it does not compare its findings with similar derailments in other sciences: it 'uniquely' targets social psychology, whereas a comparison with other sciences would have shown that the noticed defects are of a much more general character in modern science. This was considered to be an unfair treatment of social psychology.

True, the report does not compare the observed disquieting facts in the domain of social psychology with the situation in neighbouring or further afield sciences, either with respect to the incidence of fraud, or generally with respect to the occurrence of bad or sloppy science. It is, given the existing literature on this topic, more than likely that such a comparison would have led the Committees to the conclusion that social psychology is not unique in these respects. However, such a comparative investigation was not part of the Committees' commission. The terms of reference, specified in the opening section of the report, limit the investigation to determining which publications (co-)authored by Stapel are fraudulent and to offering a view on the methods and the research culture that may have facilitated this misdemeanour.

We were pleased to notice that, in the various responses our report elicited, the comparison to other sciences was not used as an excuse for the observed shortcomings in social psychology. Whatever the outcome of these comparisons do show, we believe it is critical that the responsible organisations and practitioners in social psychology continue to focus attention on fostering research integrity and monitoring proper research practices at all levels. If the revelation of Stapel's fraud, the report's analysis of the research culture in which it took place, and the report's recommendations to guard against such misconduct have sharpened that attention, the Committees' major efforts have not been in vain.

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